

**REMARKS**

This Application has been carefully reviewed in light of the Office Action mailed June 15, 2006. For the reasons given below, Applicants submit that the pending claims are patentably distinguishable over the cited reference. Applicants, therefore, respectfully request reconsideration and favorable action in this case.

**Section 102 Rejections**

The Office Action rejects Claims 12-19, 37-39, 40-43, 45, and 49-50 under 35 U.S.C. § 102(b) as being anticipated by Noe et al. in article "Comparison of Polarization Handling Methods in Coherent Optical System" ("*Noe*").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P § 2131. In addition, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claims" and "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); M.P.E.P § 2131 (*emphasis added*). In regard to inherency of a reference, "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." M.P.E.P § 2112 (citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993) (*emphasis original*)). Thus, in relying upon the theory of inherency, an Examiner must provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. M.P.E.P § 2112 (citing *Ex Parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. at App. and Inter. 1990) (*emphasis original*)).

Rejected independent Claim 12 recites "generating a polarized local signal based on receiver-side feedback." Similarly, rejected independent Claim 37 recites "a means for controlling a polarization of the local signal to generate an appropriately polarized local signal" and "a means for generating feedback to modify the local signal." For a teach of

these limitations, the Examiner refers to the local oscillator (LO) of Figure 9 of *Noe*. Although the LO generates a polarized local signal, there is no disclosure this signal is “based on receiver-side feedback” nor is there a disclosure of “a means for controlling a polarization of the local signal” and a corresponding “means for generating feedback to modify the local signal.” Although the sum of the two detected split signals in Figure 9 is used for automatic gain control and channel selection, there is no disclosure that there is feedback to control the polarization of the local signal (in fact, *Noe* indicates that the sum of the detected signals is “fairly independent of the signal polarization,” and thus could not be used for such feedback control). *See Noe*, p. 1359 (second paragraph under Section III.B.). Furthermore, *Noe* discloses that the polarization of the LO is pre-determined (linear with a 45 degree azimuth). *See Noe*, p. 1358 (first paragraph under Section III.A.).

For at least these reasons, Applicants respectfully submit that each and every limitation of Claims 12 and 37 is not disclosed in *Noe* and thus request reconsideration and allowance of these claims, as well as those claims that depend from Claims 12 and 37.

In addition to depending from an allowable independent claim, many of the dependent claims are also allowable because they recite additional limitations not disclosed in *Noe*. For example, Claims 13 and 38 recite that the incoming signal is “compensated for polarization mode dispersion.” The Examiner indicates that this limitation is inherent. As noted above, when relying upon the theory of inherency, the M.P.E.P. requires that an Examiner provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Applicants respectfully submit that the Examiner has not met this requirement and that such a requirement cannot be met in this case. For at this additional reason, Applicants respectfully request reconsideration and allowance of Claims 13 and 38.

Furthermore, Claims 14 and 40 recite that the polarization of the local signal is circular. The Examiner asserts that this limitation is disclosed at page 1355 (paragraphs 5 and 6) of *Noe*. However, these passages do not even relate to the system of Figure 9 used to reject Claims 12 and 37 and also do not relate to the polarization of any local signal. In fact, the portion of *Noe* that relates to Figure 9 specifically indicates that the polarization of the

local signal is linear, as discussed above. In addition, Claim 45 recites that the local signal means yields circularly polarized light. The Examiner asserts that *Noe* inherently teaches this limitation. For the same reasons given for Claims 14 and 40, Applicants respectfully disagree and request that the Examiner detail how such a teaching is inherent. For at these additional reasons, Applicants respectfully request reconsideration and allowance of Claims 14, 40 and 45.

Moreover, Claims 19 and 49 recite that a first component of the signal is aligned to an axis of the polarization beam splitter. The Examiner indicates that this inherently occurs in the polarization beam splitter in Figure 9 of *Noe*. However, Applicants disagree that this is inherent and respectfully request that the Examiner provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of *Noe*. For at this additional reason, Applicants respectfully request reconsideration and allowance of Claims 19 and 49.

In addition, Claim 39 recites that the signal is received by an automatic polarization controller. The Examiner asserts that such an automatic polarization controller is disclosed by the “right half of Figure 9.” However, Applicants cannot see how this figure discloses an automatic polarization controller and respectfully request that the Examiner more specifically identify the components he maintains as disclosing this limitation.

### **Section 103 Rejections**

The Office Action rejects Claims 44, 46-48, and 52 under 35 U.S.C. § 103(a) as being unpatentable over *Noe*. Claims 44 and 46-48 depend from independent Claim 37, which is shown above to be in condition for allowance. Although Applicants believe that these dependent claims contain additional limitations that are not disclosed, taught, or suggested by *Noe*, Applicant respectfully request allowance of Claims 44 and 46-48 at least because they depend from an allowable independent claim. Favorable action is respectfully requested.

Claim 52 contains limitations similar to Claim 12 and 37 and 14 and 40 and thus is allowable for similar reasons as presented above regarding those claims. In addition, Applicants note that the Examiner’s arguments that many of the limitations of a claim are

“obvious to one skilled in the art” without the citation of any such art are questionable, especially given the large number and specific combination of such limitations presented in Claim 52.

**CONCLUSION**

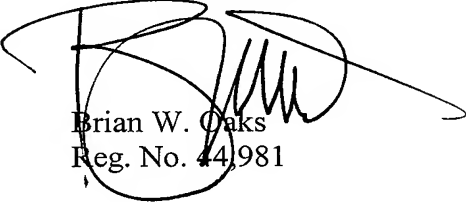
Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all the pending claims.

If the present application is not allowed and/or if one or more of the rejections is maintained, Applicants hereby request a telephone conference with the Examiner and further requests that the Examiner contact the undersigned attorney to schedule the telephone conference.

Applicants believe no fees are due, however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.  
Attorneys for Applicants



Brian W. Oaks  
Reg. No. 44,981

Date: August 11, 2006

Correspondence Address:

**Customer Number**

**05073**